



Regional Office for Europe and Central Asia

Biodiversity for food security and socio-economic resilience: green transition in Europe and Central Asia

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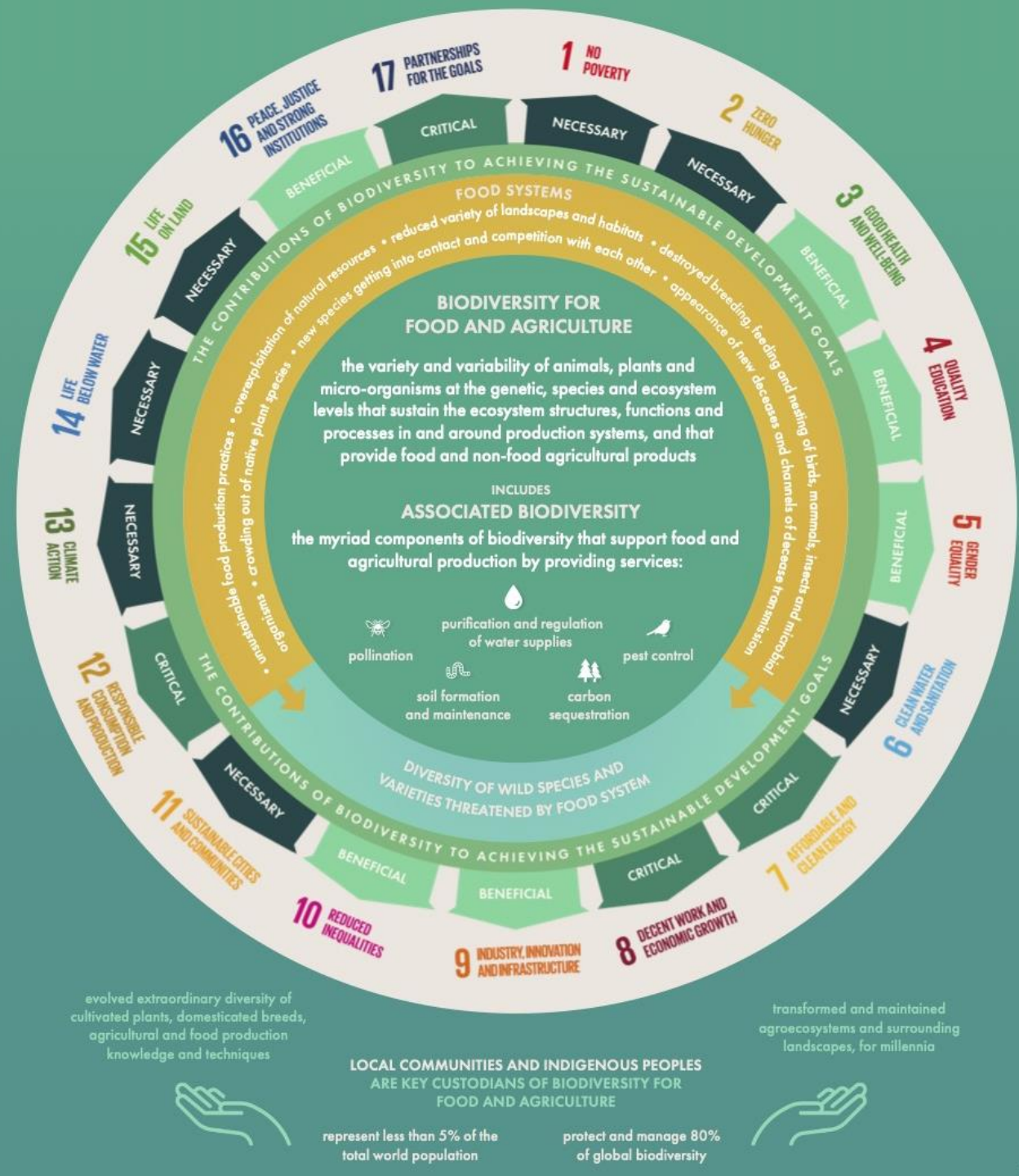
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Biodiversity for Food and Agriculture (BFA)



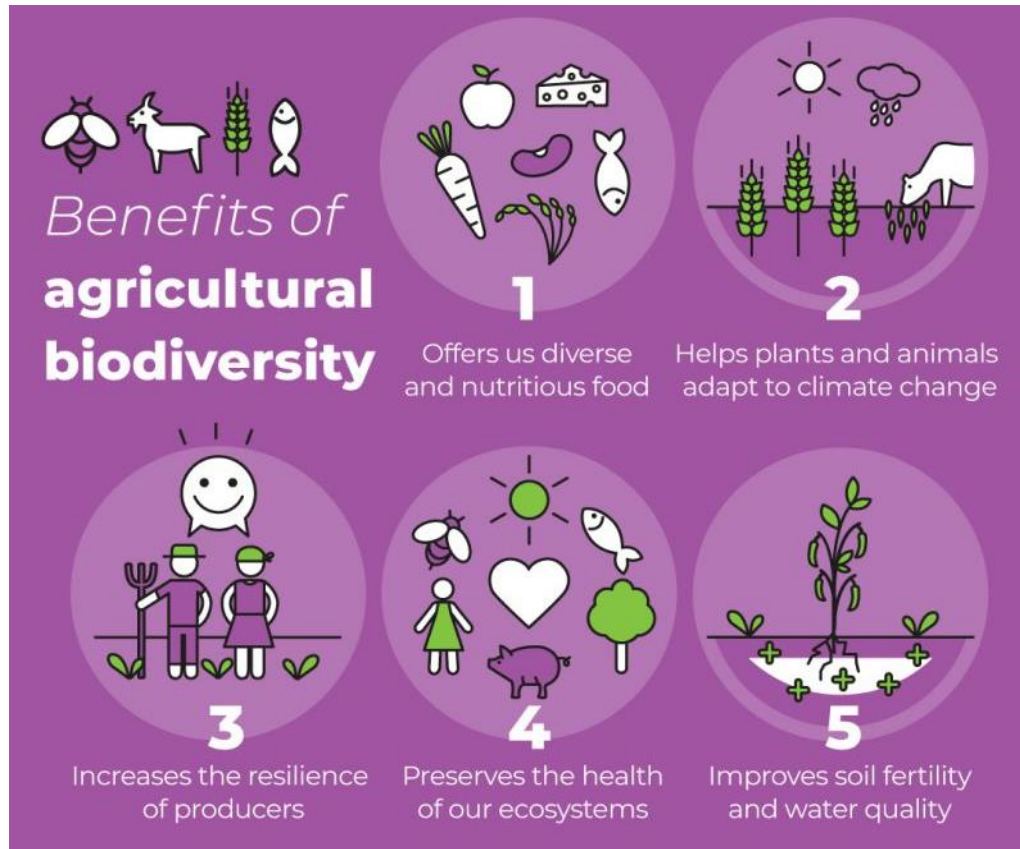
<https://www.fao.org/platforms/green-agriculture/areas-of-work/natural-resources-biodiversity-green-production/biodiversity/en>

<https://www.fao.org/documents/card/en/c/cc0045en>





Health of humans and the environment requires diversity



*Sustainable diets - diets with low environmental impacts that contribute to food and nutrition security and to healthy life for present and future generations. They are **protective and respectful of biodiversity and ecosystems**, culturally acceptable, accessible, economically fair and affordable as well as nutritionally adequate, safe and healthy while optimizing natural and human resources.*



BFA benefits for food and nutritional security

Varietal diversity	Each variety or breed has a unique composition of macro- and micronutrients. Like, Akhaltsikhis Tseli Doli and Javakhetian Dika wheat varieties of Georgia or Ukrainian White Head, Gray Ukrainian and brown Carpathian cow breeds.
Species diversity	The larger the dietary species richness, the larger the likelihood of nutrient adequacy thanks to unique nutritional characteristics of each species. For example, different fruit species (apple, peach, quince, persimmon) provide for different nutrients.
Functional diversity	Each food group (for example, cereals, vegetables and pulses) has a unique nutritional value, combined they contribute to a diet balanced in macro- and micronutrients



BFA supplies many vital ecosystem services:





BFA, climate change and socio-economic resilience

Climate change causes biodiversity loss and erosion of genetic resources in and around agroecosystems

Biodiversity loss hampers the ability of agroecosystems to mitigate and adapt to climate change

both negatively affecting livelihood security and socio-economic stability

Diversifying agrifood systems by

- using multiple species, breeds or varieties
- integrating crop, livestock, forest and aquatic biodiversity
- improving soil and microorganism diversity
- Increasing habitat diversity
- promoting dietary diversity



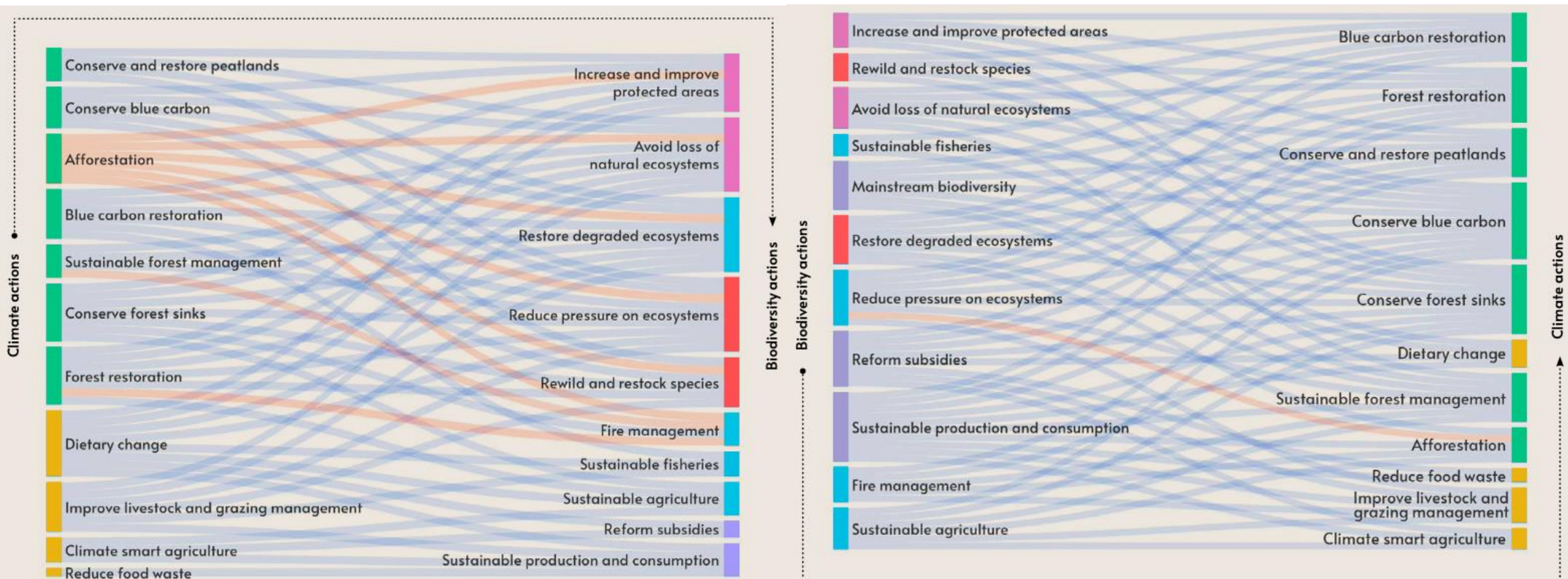
Increased agrifood production and resilience of agroecosystems:

- less reliance on costly /environmentally harmful external inputs
- more stable yields
- more resilient to pest and disease outbreaks
- more resilient to climate change effects
- better soil quality and water supply

production systems and livelihoods more resilient to shocks and stresses



Interlinked complex effects of actions to mitigate biodiversity loss and climate change



Targets of the Kunming-Montreal GBF directly related to agrifood sectors

- Target 1:** Addressing land and sea use change

- Target 2:** Ecosystem restoration

- Target 3:** Protected areas and OECMs

- Target 4:** Extinction risk and genetic diversity

- Target 5:** Use, harvesting and trade of wild species

- Target 6:** Invasive alien species

- Target 7:** Pollution

- Target 8:** Climate change

- Target 9:** Benefits from the use of wild species

- Target 10:** Sustainable agriculture, aquaculture, fisheries and forestry

- Target 11:** Nature's contribution to people, including soil health and pollination

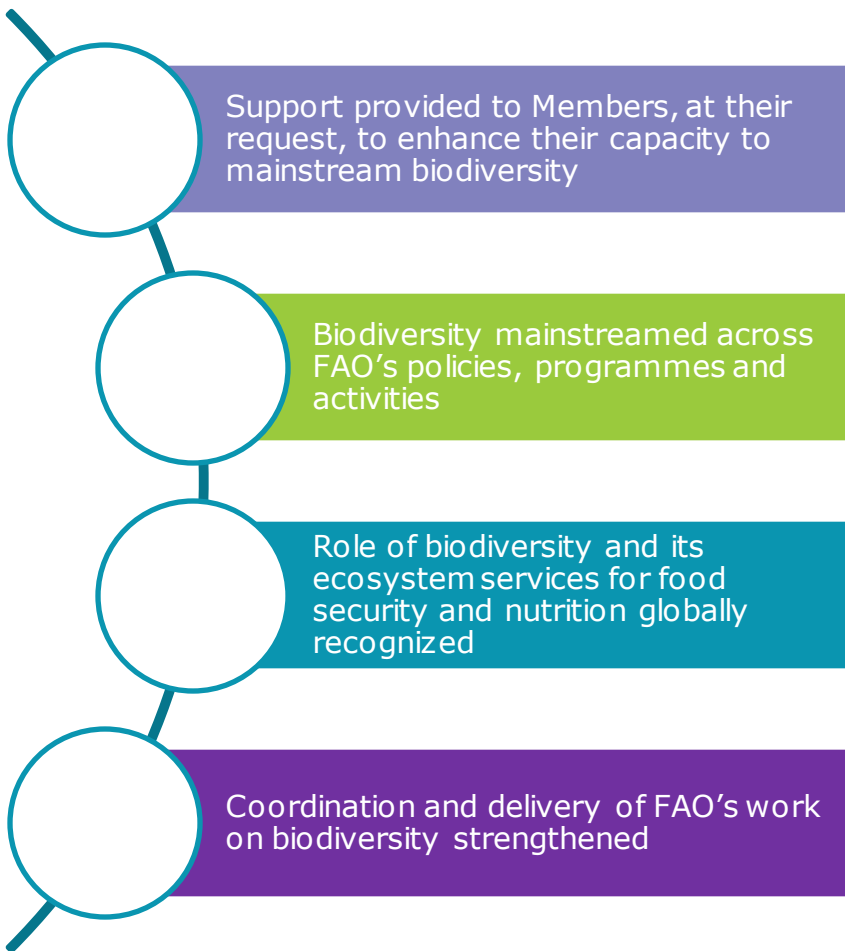
- Target 13:** Capacity Building for Equitable Access to Genetic Resources

- Target 14:** Mainstreaming biodiversity

- Target 16:** Sustainable consumption choices & global footprint of consumption

- Target 18:** Incentives and subsidies harmful to biodiversity

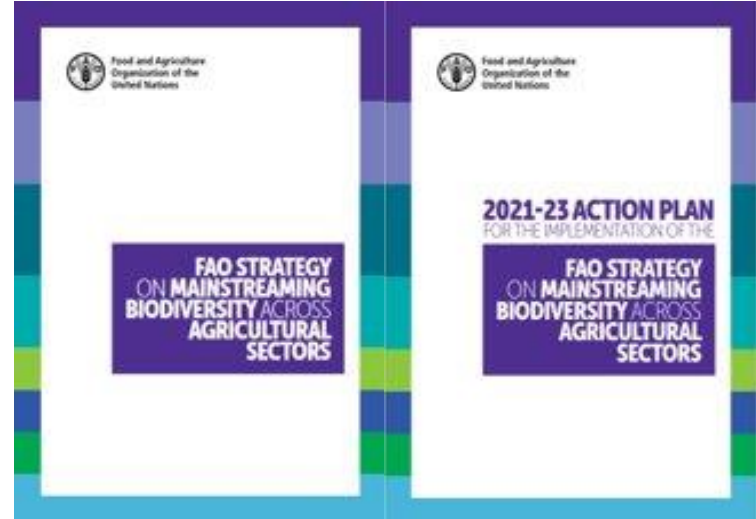
The Framework cannot be achieved without the active engagement of the agrifood sectors



FAO REU work



<https://www.fao.org/docrep/052/c1159en/c1159en.pdf> <https://www.fao.org/docrep/052/c3851e/c3851e.pdf>



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BFA-related actions for greening agrifood systems in the Europe and Central Asia region

Supporting countries' capacities to achieve land degradation neutrality (LDN) through enhancing the climate change-LDN nexus approach to sustainable soil, land and pasture management => **improving soil biodiversity and its carbon content**

Supporting **farmers' seed banks and promoting on-farm genetic variability** => enhancing the resilience of smallholders and family farms against climate change, shocks and crises while greatly benefiting biodiversity conservation

Developing bioindicators to evaluate the **impact of agriculture on biodiversity** in the Globally Important Agricultural Heritage Systems (GIAHS) and its integration into the assessment of vulnerability and resilience to climate change => demonstrating the GIAHS potential as a strategy to promote biodiversity preservation along with building resilience to climate change

Building expert capacity in the countries to apply the **quantitative assessment of the effects of livestock production on wild biodiversity** (Livestock Environmental Assessment and Performance (LEAP) Partnership guidelines) => generate quantitative data to be used for shaping policies and actions



THANK YOU

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